

Art Unit: 2675

CLMPTO

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1. A computer system comprising:
 - a hardware unit to transmit data representing graphics to another computer or a display;
 - a processor coupled to the hardware unit; and
 - a storage device coupled to the processor and having stored therein a routine, which when executing by the processor, causes the processor to generate the data, the routine at least causing the processor to at least,
 - access a first data operand having a data element;
 - access a second packed data operand having at least two data elements;
 - insert the data element in the first data operand into a destination field of a destination register.
2. The computer system of claim 1 wherein the storage device further comprises a packing device for packing floating point data into the data elements.
3. The computer system of claim 1 wherein the storage device further comprises a packing device for packing integer data into the data elements.
4. A computer system comprising:
 - a hardware unit to transmit data representing graphics to another computer or a display;

a processor coupled to the hardware unit; and
a storage device coupled to the processor and having stored therein a routine, which when executing by the processor, causes the processor to generate the data, the routine at least causing the processor to at least,
access a first packed data operand having at least two data elements; and
extract one of the data elements from the first packed data operand into a field of a destination register.

5. The computer system of claim 4 wherein the storage device further causes the processor to extract one of the data elements from the first packed data operand into a field of a packed destination register.

6. The computer system of claim 4 wherein the storage device further comprises a packing device for packing floating point data into the data elements.

7. The computer system of claim 4 wherein the storage device further comprises a packing device for packing integer data into the data elements.

8. (Amended) A method comprising the computer-implemented [steps of]:
decoding a single instruction;
in response to [the step of] decoding the single instruction,
accessing a first data operand having a data element;
accessing a second packed data operand having at least two data elements;

inserting the data element in the first data operand into a destination field of a destination register.

9. (Amended) The method of claim 8 further comprising [the step of] packing floating point data into the data elements.

10. (Amended) The method of claim 8 further comprising [the step of] packing integer data into the data elements.

11. (Amended) A method comprising the computer-implemented [steps of]:
decoding a single instruction;
in response to [the step of] decoding the single instruction,
accessing a first packed data operand having at least two data elements;
and
extracting one of the data elements from the first packed data operand into a field of a destination register.

12. (Amended) The method of claim 11 wherein [the step of] extracting one of the data elements from the first packed operand comprises extracting one of the data elements from the first packed data operand into a field of a packed destination register.

13. (Amended) The method of claim 11 further comprising [the step of] packing floating point data into the data elements.

14. (Amended) The method of claim 11 further comprising [the step of] packing integer data into the data elements.

15. (Amended) A method comprising the computer implemented [steps of]:
accessing data representative of a first three-dimensional image;

altering the data using three-dimensional geometry to generate a second three-dimensional image, [the step of] altering at least including,
accessing a first data operand having a data element;
accessing a second packed data operand having at least two data elements;
inserting the data element in the first data operand into a destination field of a destination register; and
displaying the second three-dimensional image.

16. (Amended) The method of claim 15 wherein [the step of] altering includes the performance of a three-dimensional transformation.

17. (Amended) The method of claim 15 wherein [the step of] altering includes [the step of] packing floating point data into the data elements.

18. (Amended) The method of claim 15 wherein [the step of] altering includes [the step of] packing integer data into the data elements.

19. (Amended) A method comprising the computer implemented [steps of]:
accessing data representative of a first three-dimensional image;
altering the data using three-dimensional geometry to generate a second three-dimensional image, [the step of altering] at least including,
accessing a first packed data operand having at least two data elements; and
extracting one of the data elements from the first packed data operand into a field of a destination register; and
displaying the second three-dimensional image.

20. (Amended) The method of claim 19 wherein [the step of] altering further includes [the step of] extracting one of the data elements from the first packed data operand into a field of a packed destination register.

21. (Amended) The method of claim 19 wherein [the step of] altering includes the performance of a three-dimensional transformation.
 22. (Amended) The method of claim 19 wherein [the step of] altering includes [the step of] packing floating point data into the data elements.
 23. (Amended) The method of claim 19 wherein [the step of] altering includes [the step of] packing integer data into the data elements.
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